Fig.1

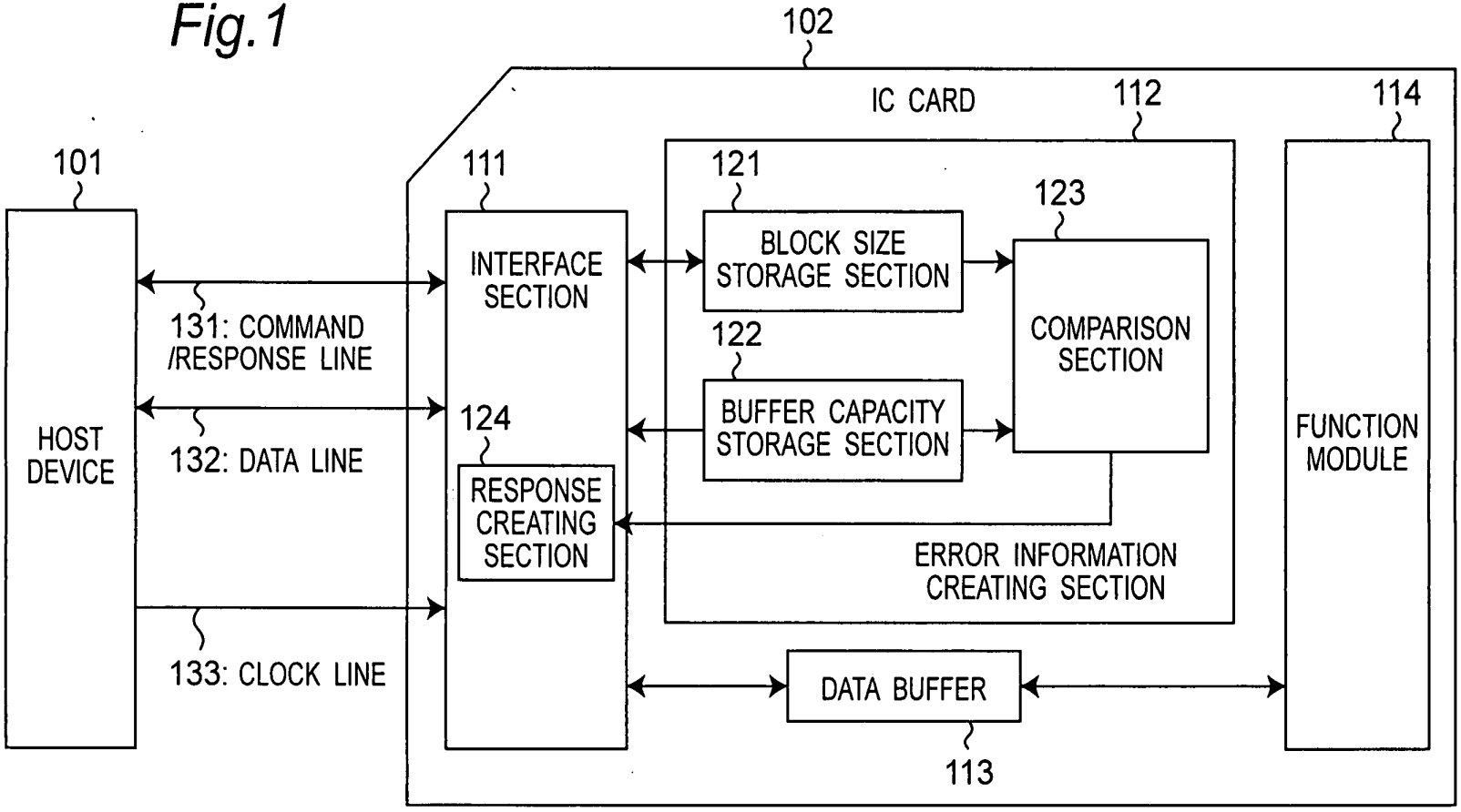

102
IC CARD
112
114
101
111
121
123
INTERFACE SECTION
BLOCK SIZE STORAGE SECTION
COMPARISON SECTION
131: COMMAND /RESPONSE LINE
122
HOST DEVICE
124
BUFFER CAPACITY STORAGE SECTION
FUNCTION MODULE
132: DATA LINE
RESPONSE CREATING SECTION
ERROR INFORMATION CREATING SECTION
133: CLOCK LINE
DATA BUFFER
113

Fig.2

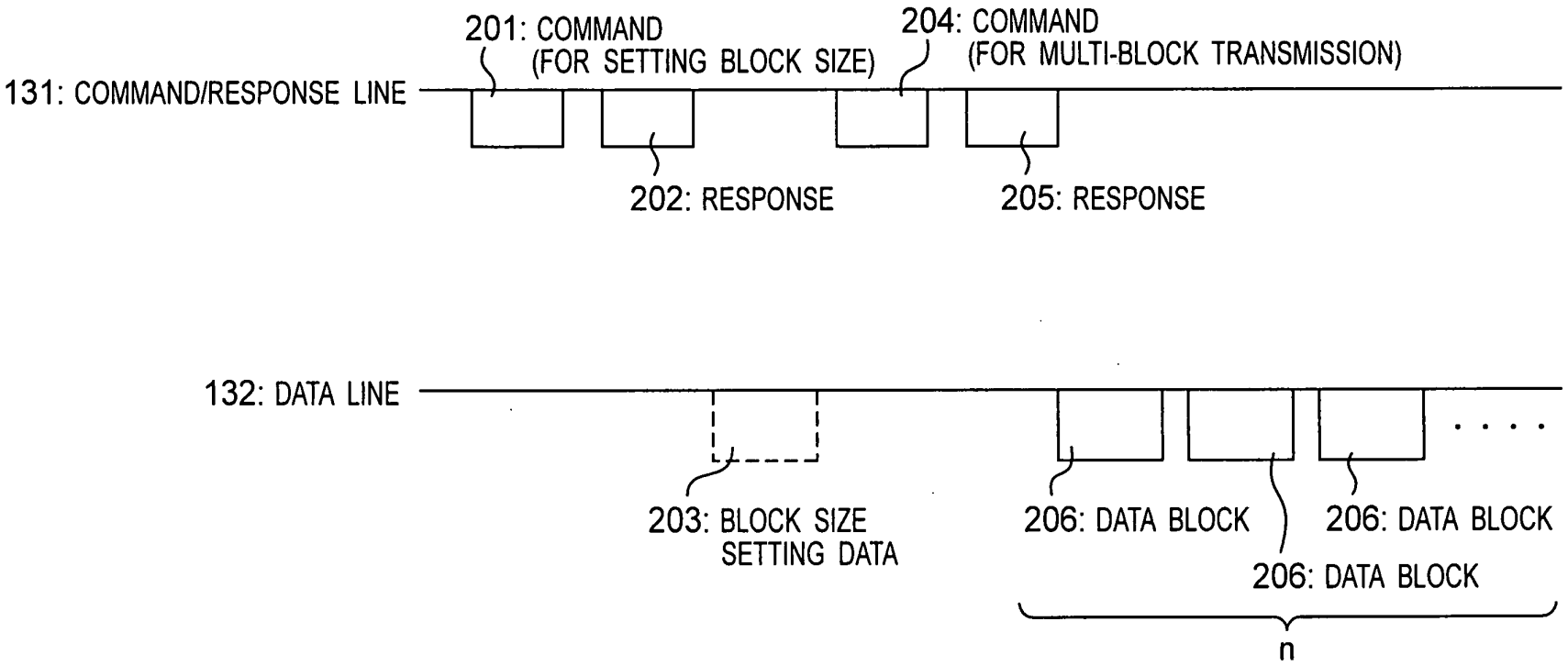

201: COMMAND
(FOR SETTING BLOCK SIZE)
204: COMMAND
(FOR MULTI-BLOCK TRANSMISSION)
131: COMMAND/RESPONSE LINE
202: RESPONSE
205: RESPONSE
132: DATA LINE
203: BLOCK SIZE
SETTING DATA
206: DATA BLOCK
206: DATA BLOCK
206: DATA BLOCK
n

Fig.3

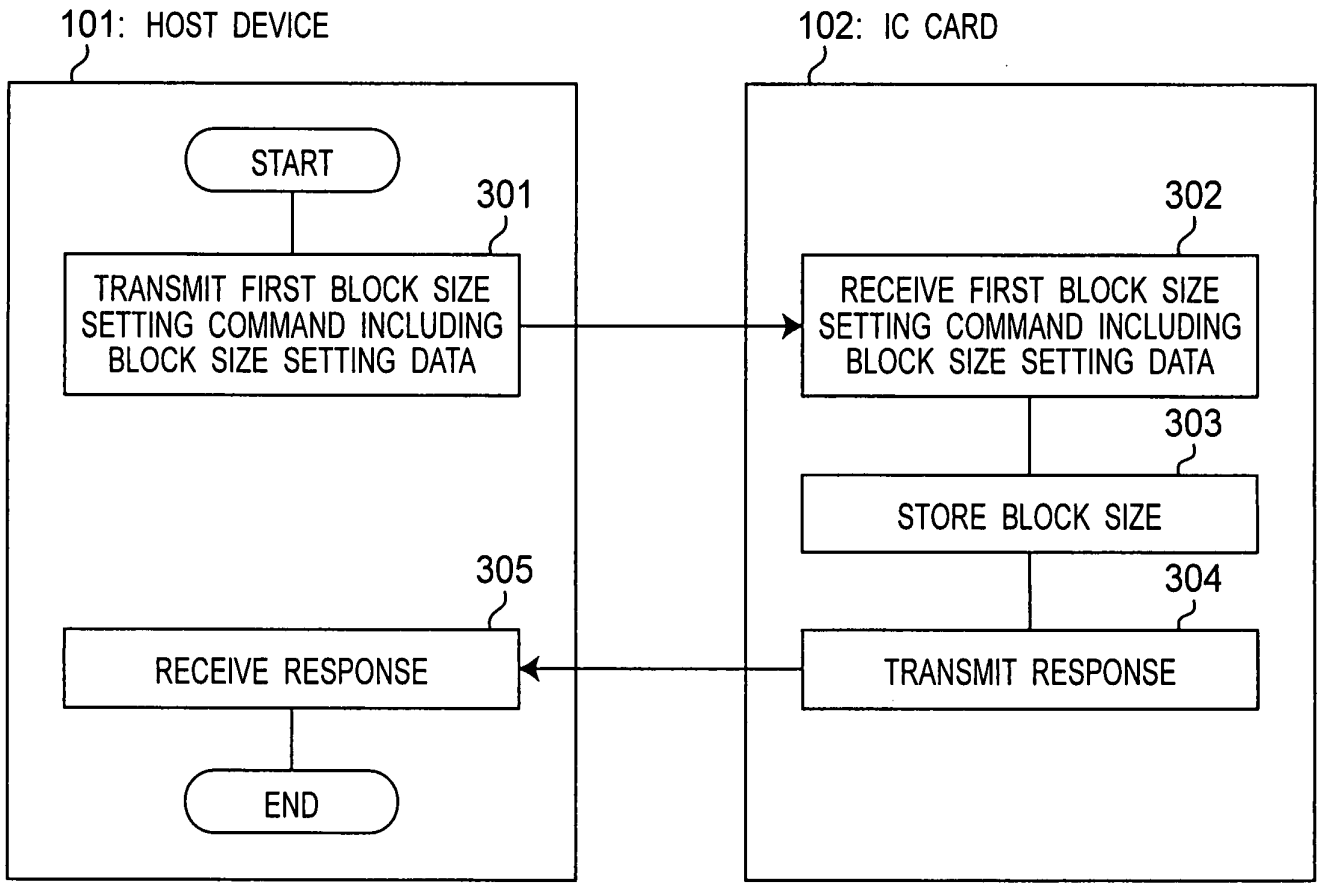

101: HOST DEVICE
102: IC CARD
START
301
TRANSMIT FIRST BLOCK SIZE SETTING COMMAND INCLUDING BLOCK SIZE SETTING DATA
302
RECEIVE FIRST BLOCK SIZE SETTING COMMAND INCLUDING BLOCK SIZE SETTING DATA
303
STORE BLOCK SIZE
304
TRANSMIT RESPONSE
305
RECEIVE RESPONSE
END

Fig.4

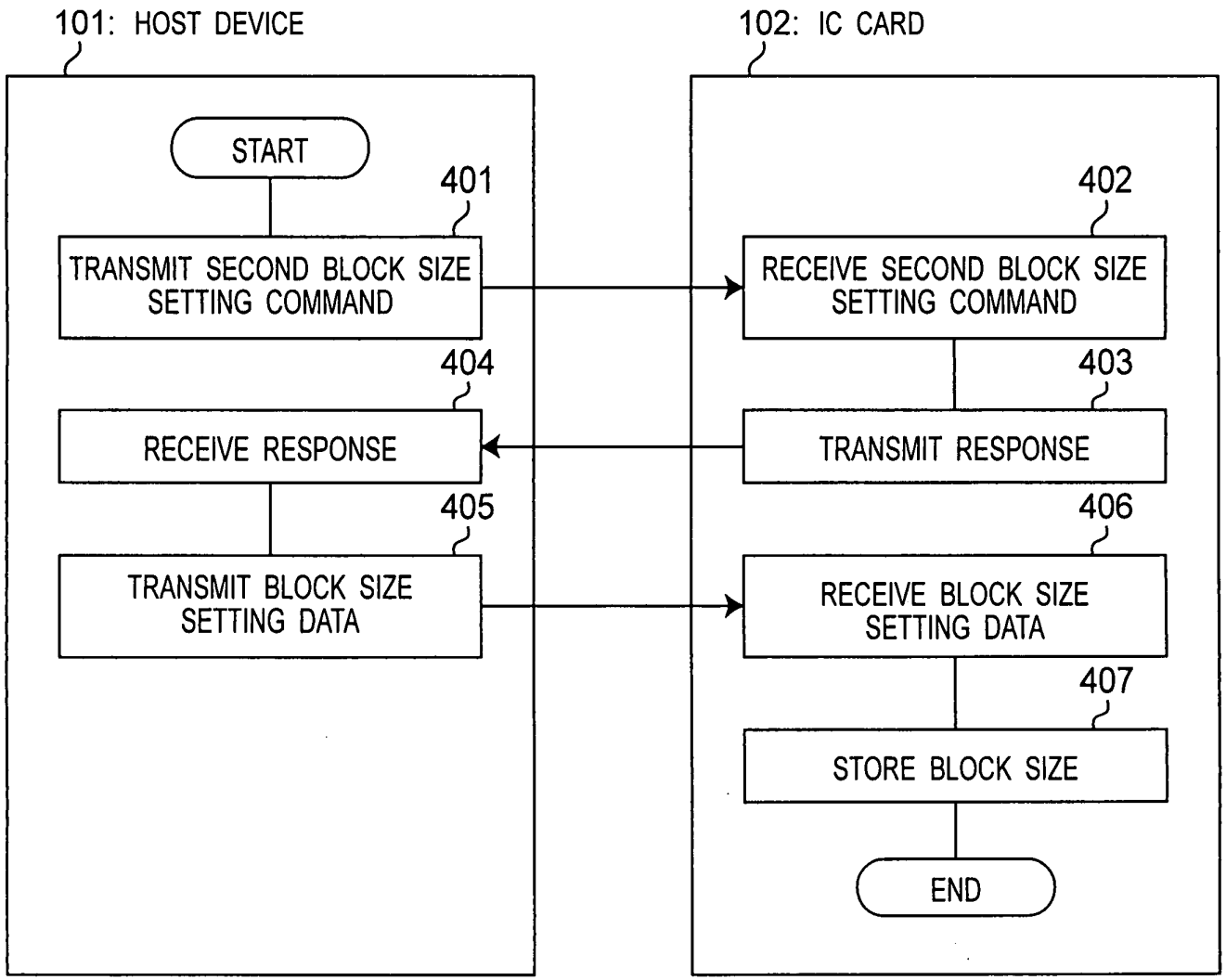

101: HOST DEVICE
102: IC CARD
START
401
TRANSMIT SECOND BLOCK SIZE SETTING COMMAND
402
RECEIVE SECOND BLOCK SIZE SETTING COMMAND
403
TRANSMIT RESPONSE
404
RECEIVE RESPONSE
405
TRANSMIT BLOCK SIZE SETTING DATA
406
RECEIVE BLOCK SIZE SETTING DATA
407
STORE BLOCK SIZE
END

Fig. 5

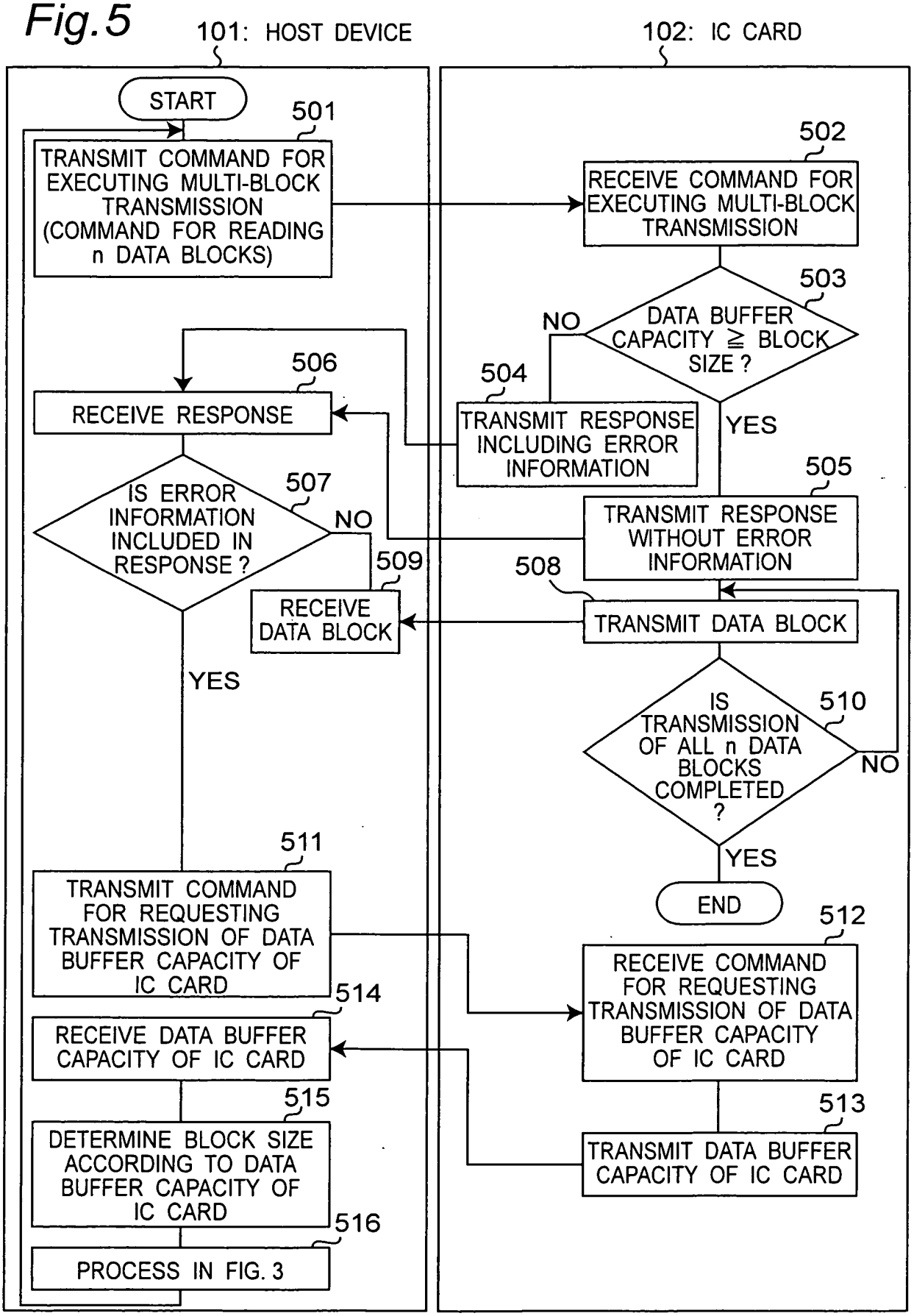

101: HOST DEVICE
102: IC CARD
START
501
TRANSMIT COMMAND FOR EXECUTING MULTI-BLOCK TRANSMISSION (COMMAND FOR READING n DATA BLOCKS)
502
RECEIVE COMMAND FOR EXECUTING MULTI-BLOCK TRANSMISSION
503
DATA BUFFER CAPACITY ≧ BLOCK SIZE ?
NO
YES
504
TRANSMIT RESPONSE INCLUDING ERROR INFORMATION
505
TRANSMIT RESPONSE WITHOUT ERROR INFORMATION
506
RECEIVE RESPONSE
507
IS ERROR INFORMATION INCLUDED IN RESPONSE ?
NO
YES
508
TRANSMIT DATA BLOCK
509
RECEIVE DATA BLOCK
510
IS TRANSMISSION OF ALL n DATA BLOCKS COMPLETED ?
NO
YES
END
511
TRANSMIT COMMAND FOR REQUESTING TRANSMISSION OF DATA BUFFER CAPACITY OF IC CARD
512
RECEIVE COMMAND FOR REQUESTING TRANSMISSION OF DATA BUFFER CAPACITY OF IC CARD
513
TRANSMIT DATA BUFFER CAPACITY OF IC CARD
514
RECEIVE DATA BUFFER CAPACITY OF IC CARD
515
DETERMINE BLOCK SIZE ACCORDING TO DATA BUFFER CAPACITY OF IC CARD
516
PROCESS IN FIG. 3

Fig.6

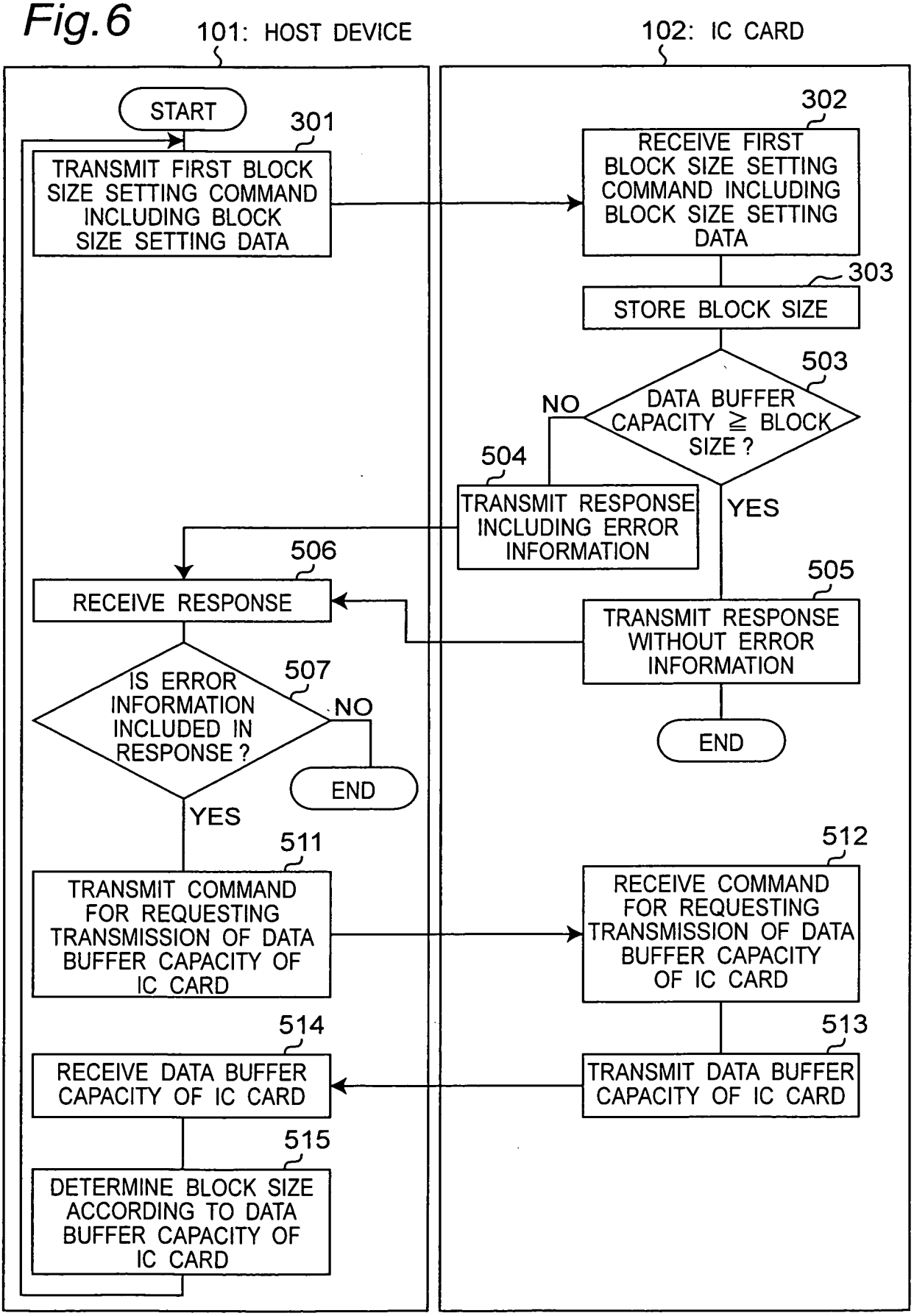

101: HOST DEVICE
102: IC CARD
START
301
TRANSMIT FIRST BLOCK SIZE SETTING COMMAND INCLUDING BLOCK SIZE SETTING DATA
302
RECEIVE FIRST BLOCK SIZE SETTING COMMAND INCLUDING BLOCK SIZE SETTING DATA
303
STORE BLOCK SIZE
503
DATA BUFFER CAPACITY ≧ BLOCK SIZE ?
NO
YES
504
TRANSMIT RESPONSE INCLUDING ERROR INFORMATION
505
TRANSMIT RESPONSE WITHOUT ERROR INFORMATION
END
506
RECEIVE RESPONSE
507
IS ERROR INFORMATION INCLUDED IN RESPONSE ?
NO
END
YES
511
TRANSMIT COMMAND FOR REQUESTING TRANSMISSION OF DATA BUFFER CAPACITY OF IC CARD
512
RECEIVE COMMAND FOR REQUESTING TRANSMISSION OF DATA BUFFER CAPACITY OF IC CARD
513
TRANSMIT DATA BUFFER CAPACITY OF IC CARD
514
RECEIVE DATA BUFFER CAPACITY OF IC CARD
515
DETERMINE BLOCK SIZE ACCORDING TO DATA BUFFER CAPACITY OF IC CARD

Fig.7

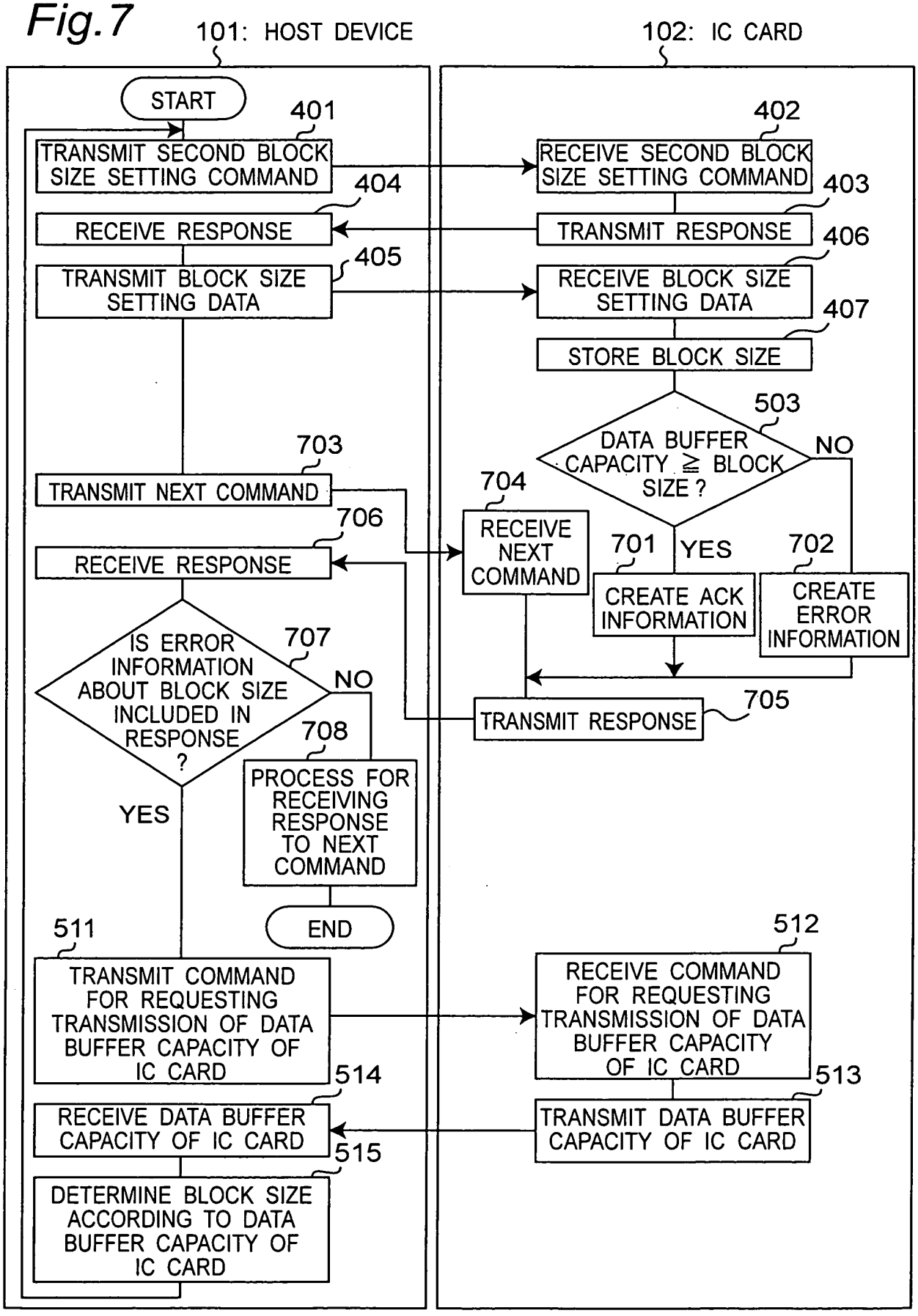

101: HOST DEVICE
102: IC CARD
START
401
TRANSMIT SECOND BLOCK SIZE SETTING COMMAND
402
RECEIVE SECOND BLOCK SIZE SETTING COMMAND
403
TRANSMIT RESPONSE
404
RECEIVE RESPONSE
405
TRANSMIT BLOCK SIZE SETTING DATA
406
RECEIVE BLOCK SIZE SETTING DATA
407
STORE BLOCK SIZE
503
DATA BUFFER CAPACITY ≧ BLOCK SIZE ?
NO
YES
703
TRANSMIT NEXT COMMAND
704
RECEIVE NEXT COMMAND
701
CREATE ACK INFORMATION
702
CREATE ERROR INFORMATION
706
RECEIVE RESPONSE
707
IS ERROR INFORMATION ABOUT BLOCK SIZE INCLUDED IN RESPONSE ?
NO
YES
705
TRANSMIT RESPONSE
708
PROCESS FOR RECEIVING RESPONSE TO NEXT COMMAND
END
511
TRANSMIT COMMAND FOR REQUESTING TRANSMISSION OF DATA BUFFER CAPACITY OF IC CARD
512
RECEIVE COMMAND FOR REQUESTING TRANSMISSION OF DATA BUFFER CAPACITY OF IC CARD
513
TRANSMIT DATA BUFFER CAPACITY OF IC CARD
514
RECEIVE DATA BUFFER CAPACITY OF IC CARD
515
DETERMINE BLOCK SIZE ACCORDING TO DATA BUFFER CAPACITY OF IC CARD

Fig.8A

NORMAL RESPONSE

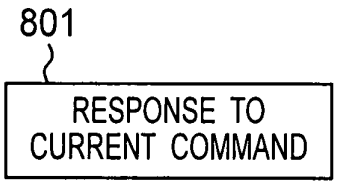
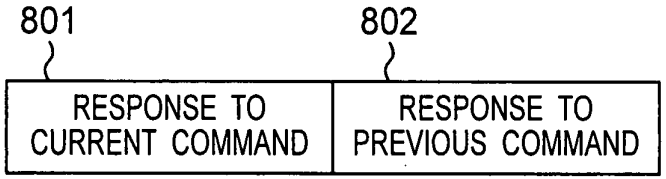


Fig.8B

RESPONSE TO NEXT COMMAND